



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No.: 10/635,971 Confirmation No.: 1239
Applicant: Watanabe *et al.*
Filed: August 6, 2003
Title: Processes for Preparing 1,3-Dioxolane Nucleosides

TC/A.AU.: 1644
Examiner: Unassigned

Docket No.: 08841.105052 (PHA 2030 US)
Customer No.: 20786
Commissioner for Patents
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Respectfully submitted,

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PATENT & TRADEMARK OFFICE

Submitted for form 1449/PTO

INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

Complete if Known

Application Number

10/635,971

Filing Date

August 6, 2003

First Named Inventor

Watanabe *et al.*

Group Art Unit

1644

Examiner

Unassigned

Sheet 1 of 3

Attorney Docket Number

08841.105052 (PHA 2030)

3401675 1

U.S. PATENT DOCUMENTS

Examiner Initials *	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages/Relevant Figures Appear
		Number	Kind Code ² (if known)			
	AA	5,047,407		Belleau <i>et al.</i>	09-10-1991	
	AB	5,204,466	A	Liotta <i>et al.</i>	04-20-1993	
	AC	5,272,151	A	Marzi <i>et al.</i>	12-21-1993	
	AD	5,663,320	A	Mansour <i>et al.</i>	09-02-1997	
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FOREIGN PATENT DOCUMENTS

Examiner Initials *	Cite No. ¹	Foreign Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document DD-MM-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
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	AO	BAUER, M., <i>et al.</i> , "Iodide catalysis of oxidations with dimethyl sulfoxide: a convenient two-step synthesis of α-diketones from α-methylene ketones," <i>J. Org. Chem.</i> , 40(13):1990-1992 (1975).	
	AP	BELLEAU, B., <i>et al.</i> , "Design and activity of a novel class of nucleoside analogs effective against HIV-1," <i>5th Int. Conf. on AIDS</i> , Montreal, Canada; June 4-9, 1989; Abstr. No. T.C.O.1. and Poster No. 4576.	

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Submitted for form 1449/PTO				<i>Complete if Known</i>	
				Application Number	10/635,971
				Filing Date	August 6, 2003
				First Named Inventor	Watanabe <i>et al.</i>
				Group Art Unit	1644
				Examiner	Unassigned
Sheet	2	of	3	Attorney Docket Number	08841.105052 (PHA 2030)

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	BA	CHOI, W.-B., <i>et al.</i> , "In situ complexation directs the stereochemistry of N-glycosylation in the synthesis of oxathiolanyl and dioxolanyl nucleoside analogues," <i>J. Am. Chem. Soc.</i> , 113(24):9377-9379 (1991).	
	BB	CHOU, T.-S., <i>et al.</i> , "A cyclization approach toward five-membered heteroaromatic o-quinodimethanes via fused-3-sulfolenes," <i>J. Chinese Chem. Soc.</i> , 44:299-307 (1997).	
	BC	CORBET, A.H., <i>et al.</i> , "DAPD," <i>Curr. Opin. Investig. Drugs</i> , 2(9):348-353 (2001).	
	BD	EVANS, C.A. <i>et al.</i> , "Divergent asymmetric syntheses of dioxolane nucleoside analogues," <i>Tetrahedron: Asymmetry</i> , 4(11):2319-2322 (1993).	
	BE	GRESE, T. A., <i>et al.</i> , "General approach to halogenated tetrahydrofuran natural products from red algae of the genus <i>Laurencia</i> . Total synthesis of (\pm)-kumausallene and (\pm)-1- <i>epi</i> -kumausallene," <i>J. Org. Chem.</i> , 58(9):2468-2477 (1993).	
	BF	GU, Z., <i>et al.</i> , "Mechanism of action and in vitro activity of 1',3'-dioxolanylpurine nucleoside analogues against sensitive and drug-resistant human immunodeficiency virus type 1 variants," <i>Antimicrob. Agents Chemother.</i> , 43(10):2376-2382 (October 1999).	
	BG	GU, Z., <i>et al.</i> , "Anti-HIV-1 activities of 1,3-dioxolane guanine and 2,6-diaminopurine dioxolane," <i>Nucleosides Nucleotides</i> , 18(4&5):891-892 (1999).	
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	BI	HANESSIAN, S., <i>et al.</i> , "Oxidation of alcohols with <i>N</i> -halosuccinimides -- new and efficient variants," <i>Synthesis</i> , 1981:394-396 (May 1981).	
	BJ	HANN, R.H., <i>et al.</i> , "The structures of the diacetone dulcitol," <i>J. Am. Chem. Soc.</i> , 61:2432-2442 (1939).	
	BK	HASKINS, W. T., <i>et al.</i> , "The isomeric 1,3- and 2,3-benzylidene-D-arabitol," <i>J. Am. Chem. Soc.</i> , 65(9):1663-1667 (September 7, 1943).	
	BL	HOPKINS, M. H., <i>et al.</i> , "Stereocontrolled preparation of tetrahydrofurans from acid-promoted rearrangements of allylic acetals," <i>J. Am. Chem. Soc.</i> , 113(14):5354-5365 (1991).	
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	BN	KORNBLUM, N., <i>et al.</i> , "A new and selective method of oxidation. The conversion of alkyl halides and alkyl tosylates to aldehydes," <i>J. Am. Chem. Soc.</i> , 81:4113-4114 (August 5, 1959).	
	BO	KRAUS, J.-L., <i>et al.</i> , "Synthesis of new 2,5-substituted 1,3-oxathiolanes. Intermediates in nucleoside chemistry," <i>Synthesis</i> , 1991:1046-1048 (November 1991).	

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	CA	MARSHALL, J. A., <i>et al.</i> , "Stereoselective total synthesis of the pseudopterolide kallolide A," <i>J. Org. Chem.</i> , 63(17):5962-5970 (1998).	
	CB	MEWSHAW, J.P., <i>et al.</i> , "Dioxolane guanosine, the active form of the prodrug diaminopurine dioxolane, is a potent inhibitor of drug-resistant HIV-1 isolates from patients for whom standard nucleoside therapy fails," <i>J. Acquir. Immune Defic. Syndr.</i> , 29(1):11-20 (January 1, 2002).	
	CC	NORBECK, D. W. <i>et al.</i> , "A new 2',3'-dideoxynucleoside prototype with <i>in vitro</i> activity against HIV," <i>Tetrahedron Letters</i> , 30(46):6263--6266 (1989).	
	CD	OHLE, H., "Die Benzoylierung des Erythrins und Darstellung von Derivaten des O-Benzoyl-glykolaldehyds," <i>Chem. Ber.</i> , 74(2):291-294 (1941).	
	CE	SHIAO, M.-J., <i>et al.</i> , "A convenient synthesis of protected α-hydroxyacetraldehydes," <i>Synthetic Commun.</i> , 18(4):359-366 (1988).	
	CF	SHEIKH, M.Y., "The vapor phase oxidation of alcohols by cupric oxide. A convenient preparation of aldehydes and ketones," <i>Tetrahedron Lett.</i> , 1972(4):257-260 (1972).	

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